[](http://www.google.com/url?sa=i&rct=j&q=abnormal+heartbeat+&source=images&cd=&cad=rja&docid=zZcuF3Kw9GBkUM&tbnid=Vf219vOeiouYHM:&ved=0CAUQjRw&url=http://www.buzzle.com/articles/irregular-heartbeat-causes.html&ei=_vs4UcCdNoTl0QH69oDIAg&bvm=bv.43287494,d.dmQ&psig=AFQjCNHEbbsLCMOSklVib9kms_SNleqNSA&ust=1362775414438795)What’s Your Type?

LQT7

*(Also referred to as Andersen-Tawil Syndrome or Andersen Syndrome)*

General

This type of Long QT Syndrome is affiliated with the KCNJ2 gene which is found on the long arm of chromosome 17. This mutated gene affects the potassium channel’s ability in the heart and the movement of potassium throughout the muscles which essentially allows the body to move.

Features Unique to LQT7

* Periodic paralysis
* Scoliosis
* Syndactyly (fused fingers and toes)
* Short stature
* Hypertelorism (wide-spaced eyes)
* Low-set ears
* Hypoplastic mandible (small chin)
* Palate abnormalities
* Clinodactyly (curved fingers and toes)

LQT1 & LQT5

General:

*LQT1*

* Most common form
* Gene mutations in KVLQT1 on short arm of chromosome 11
* Affects part of a voltage-gated potassium ion channel

*LQT5*

* Mutations in the gene KCNE1 on chromosome 21
* KCNE1 connects with KVLQT1 to make a potassium ion channel
* Lengthens QT interval by delaying depolarization

How These Types Are Linked

* KVLQT1 gene links them
* The gene is associated in both types but affected differently

LQT2 & LQT6

General

*LQT2*

* Second most common form
* Mutations in HERG gene on chromosome 7
* Results in loss of potassium current (IKr)

*LQT6*

* Mutations in KCNE2 gene on chromosome 21
* This gene combines with the protein encoded by the gene associated with LQT2 which forms a potassium ion channel

Why are these types linked?

* The two genes affiliated with each type combine to form a potassium ion channel

LQT3

General

* Mutations in SCN5A gene on the short arm of chromosome 3
* One of the most uncommon types

How this differs from Brugada Syndrome

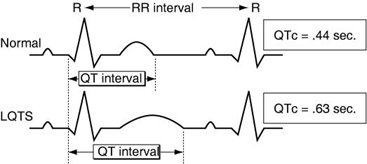
* Brugada shortens the time action potential
* LQT3 gene mutations prolongs the action potential

[](http://www.google.com/url?sa=i&rct=j&q=sleeping&source=images&cd=&cad=rja&docid=Rr_M-4WAOTw3-M&tbnid=uxgY9m2Li35EGM:&ved=0CAUQjRw&url=http://www.immortalhumans.com/your-brain-could-be-sleeping-while-youre-wide-awake/&ei=uh05UY-8IrK20QHY3YGgDg&psig=AFQjCNGwyp86YH13H-DWPlnXQkhnIpbbWw&ust=1362784030773494)

*\*Caption\**

LQT4

*(Commonly referred to as sick sinus syndrome)*

[](http://www.google.com/url?sa=i&rct=j&q=long+qt+interval&source=images&cd=&cad=rja&docid=TXyFl5zviWfcYM&tbnid=Q9GssFTFickzbM:&ved=0CAUQjRw&url=http://www.sads.org/Library/Long-QT-Syndrome&ei=WR05UdiOAc3y0wHil4CYDw&psig=AFQjCNEdQ5cb5moinf9aa30zds6RTdiGxg&ust=1362783843198570)

\*caption\*

General

* Mutation in ANK2 gene on long arm of chromosome 4
* Role in organization of sodium pump that exchanges sodium and calcium in and out of heart
* Reduces ability to get necessary minerals to heart cells

What makes LQT4 different?

* Typical symptoms seen in LQTS
* Considered a condition distinct from classic LQTS
* The long QT interval not always seen in individuals with the LQT4 strain